

CLAIMS

1. (Original) A developing method for forming a predetermined toner image by allowing a magnetic monocomponent toner to jump to a photoconductor from a developing sleeve, and developing an electrostatic latent image formed on the photoconductor, wherein

as the magnetic monocomponent toner, a toner having a volume center particle size which falls within a range from 6.0 to 7.8 μ m, having the sphericity which falls within a range from 0.92 to 0.98, and setting a toner quantity having a volume particle size of 5.04 μ m or less to a value which falls within a range from 2.5 to 10.0 volume% is used and, at the same time, assuming a toner quantity per unit area of the toner image as A, a following relationship formula (1) is satisfied.

$$0.6\text{mg/cm}^2 \leq A \leq 0.9\text{mg/cm}^2 \quad (1)$$

2. (Original) The developing method according to claim 1, wherein assuming the surface roughness of the developing sleeve as Rz, the surface roughness Rz satisfies a following relationship formula (2).

$$3.0\mu\text{m} \leq R_z \leq 5.5\mu\text{m} \quad (2)$$

3. (Currently Amended) The developing method according to claim 1 or ~~claim 2~~, wherein assuming the toner quantity per unit area of the toner thin layer formed on the developing sleeve as B, a following relationship formula (3) is satisfied.

$$0.6\text{mg/cm}^2 \leq B \leq 0.90\text{mg/cm}^2 \quad (3)$$

4. (Currently Amended) The developing method according to ~~any one of claims 1 to 3~~, claim 1, wherein the photoconductor is an amorphous-silicon photoconductor, and a cleaning blade and a cleaning roller are used in combination as a cleaning device.

5. (Currently Amended) The developing method according to ~~any one of claims 1 to 4~~, claim 1, wherein the magnetic monocomponent toner is manufactured such that the resin composition is prepared by adding 30 to 120 parts by weight of magnetic powder, 0.1 to 10 parts by weight of a charge control agent and 1 to 10 parts by weight of wax into 100 parts by weight of binding resin, the resin composition is pulverized by a turbo mill and, thereafter, the pulverized resin composition is classified using an Alpine classifier.

6. (Original) A developing unit for forming a predetermined toner image by allowing a magnetic monocomponent toner to jump to a photoconductor from a developing sleeve, and developing an electrostatic latent image formed on the photoconductor, wherein as the magnetic monocomponent toner, a toner having a volume center particle size which falls within a range from 6.0 to 7.8 μ m, having the sphericity which falls within a range from 0.92 to 0.98, and setting a toner quantity having a volume particle size of 5.04 μ m or less to a value which falls within a range from 2.5 to 10.0 volume% is used and, at the same time, assuming a toner quantity per unit area of the toner image as A, a following relationship formula (1) is satisfied.

$$0.6\text{mg/cm}^2 \leq A \leq 0.9\text{mg/cm}^2 \quad (1)$$

7. (Original) The developing unit according to claim 6, wherein assuming the surface roughness of the developing sleeve as Rz, the surface roughness Rz satisfies the following relationship formula (2).

$$3.0\mu\text{m}\leq\text{Rz}\leq5.5\mu\text{m} \quad (2)$$

8. (Currently Amended) The developing unit according to claim 6 ~~or claim 7~~, wherein assuming the toner quantity per unit area on the toner thin layer which is formed on the developing sleeve is B, a following relationship formula is satisfied.

$$0.6\text{mg}/\text{cm}^2\leq\text{B}\leq0.90\text{mg}/\text{cm}^2 \quad (3)$$

9. (Currently Amended) The developing unit according to ~~any one of claims 6 to 8~~, claim 6, wherein the photoconductor is an amorphous-silicon photoconductor and the photoconductor includes a cleaning blade and a cleaning roller in combination as a cleaning device.